FINAL SYNOPSIS OF THE THESIS TITLED

"SOCIO-ECONOMIC AND PSYCHOGRAPHIC STUDY OF AUTO RICKSHAW DRIVERS IN DAKSHINA KANNADA DISTRICT OF KARNATAKA"

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1. INTRODUCTION

Transportation is critical in a large country like India. Transportation represents a significant portion of our wealth, directly or indirectly employing hundreds of thousands of people. It also makes a substantial contribution to national income. Transportation labour was recognized as a separate element of production because it is a human aspect, while discussing work-related issues, not just economic but also moral and special factors should also be taken into account. The movement of people or goods from one location to another is referred to as transportation. From the most prehistoric times to the present, it has always been a vital human activity. The transportation of goods arises from the fact that the goods are often produced in one place and need to be transported to another place. People also have to move from one place to another to fulfill personal, social or business obligations.

The distance between the location of the goods and their destination, or between where a person is and their destination, can be seen as a time and cost constraint. Transportation therefore focuses on the objectives of being able to handle this aspect conveniently and comfortably. Transportation was the first step towards civilization and a key element in its progress. The beginnings of transportation were on rivers, and therefore all great cities whose origins can be traced back to very early times were situated on the banks of a river or near the sea. The second major advance in transportation was road transportation, after the roads and bridges were built. The development of regular road construction systems began at a time when water transport was already highly organized. The progress of transportation from the earliest times to the present consists largely on the development and use of new methods and techniques

The significant role of the driver in Motor Transportation

Many men earn their living by working in the various branches of transportation. Not only the engineers, sailors, pilots, and drivers are needed to operate the various means of transport, but many men to build, maintain, and keep them in good working order. The above transport workers, drivers play an important and responsible role in motor transport. The drivers are professionally trained workers who work in the transport company and have a heavy-duty truck driver's license. The driver is the cornerstone of the automobile worth about one lakh rupees each left in the hands of the drivers by the transport companies or vehicle owners.

In passenger transport, it is the driver's job to ensure the safety of the passengers. Since this study relates only to the problems and working conditions of public transport personnel, we refer here to the auto rickshaw. A small mistake on the part of the driver can result in at least a few passengers even losing their precious lives. In all serious accidents, the first casualty is in all likelihood of the driver. Therefore, the driver's responsibility is very great indeed.

In order to ensure a safe journey for passengers and to ensure the safety of the vehicle, a driver must be extremely alert, both mentally and physically. Mental alertness consists in having the presence of mind to avoid accidents. Road curves and ox carts are the greatest traffic hazards. A driver always has to be fast to see the road bends or to handle the carts on the roads. Driver should never give in to the desire to increase the vehicle's speed for the sheer pleasure of doing so. At breakneck speeds, drivers have little time to make up for their mistakes when the vehicle is suddenly obstructed by other passing vehicles, stray animals or lousy people on the roads.

In order to avoid accidents, the driver must be physically alert. Ametropia, hearing problems, painful parts such as legs and arms, and even driver discomfort can cause the vehicle to run into trouble. Therefore, the driver must be 100% physically fit, long night hours, addiction to intoxicating drugs and frequent habits that can affect his health make a driver too tired to be behind the wheel.

An intelligent driver always inspires confidence in the minds of passengers. He must be pleasant in his conversation and he must remain mentally balanced and cheerful-looking. A driver who yells at the passengers and taunts the others makes himself unpopular and also provokes unsavory comments. A good driver does not allow himself to be distracted at the wheel. It will be a dangerous pastime for any driver to take their hands off the wheel and break their knuckles, even for a short time. The roads are also used by other vehicles of various types, and therefore a slight swaying of the vehicle can cause untold damage to the pedestrians or the other passing vehicles. The driver must also fight against a tendency to fall asleep while driving the vehicle. Large transport accidents mainly occur in the early morning hours because the overworked and tired driver involuntarily falls asleep while driving and loses control of the vehicle. More than on the highways, the driver has to be more careful in the villages and towns where the roads are always very crowded due to the increase in population. The hasty

crossing of the road by adults and children even after sighting the speeding vehicle and the toddlers' characteristic playful mood create obstacles along the way.

The appearance of other vehicles from side streets or avenues also makes work extremely difficult for the drivers. strict vigilance is thus the price that the driver has to pay for his work, although many receive their emoluments, in the form of money, from the passengers or the owners of the car. It is the driver's responsibility to ensure that the auto rickshaw's engine, types and tubes, and lighting system are in excellent condition before commencing to work. Repair of the vehicle should never be improvised. Improper acceleration, a loose braking system, a jammed clutch disc, a rack that does not move or changes its position by itself and such defects pose a great threat to the life of the occupants and to the safety of the vehicle. A driver should not be behind the wheel unless the vehicle is roadworthy to auto rickshaw standards with full margin for easy maneuverability.

2. STATEMENT OF THE PROBLEM

In many regions of India, auto rickshaws are the primary form of public transportation, where, Work and health have long been strongly related. Due to their jobs, auto drivers are exposed to hazardous environments including polluting gases, constant noise, and whole-body vibration as well as unhealthy lifestyles like irregular eating habits, poor posture when driving, and demanding work environments (Melwani *et al.,* 2018). Moreover, the auto rickshaw drivers' workload is exacerbated by their exceedingly unpredictable working hours. Work load can also increase the physical working environment. This includes loudness (distressing noise levels) and an unpleasant climate (vibrations, too hot, too cold). As a result, they are stressed (normally in odd timings). Physical damage is becoming an increasing professional danger for auto rickshaw drivers, particularly at night (Ranjan, 2015). Furthermore, rickshaw drivers face significant socio-economic problems which need a huge attention. All these problems determine the satisfaction level of the rickshaw drivers with respect to their profession. Considering the various challenges faced by the rickshaw drivers it is essential to understand the impact of stress on their career satisfaction. Moreover, it is pertinent to address their stress. So that, they maintain work- life (family) balance and do their duty in stress- free environment. Additionally, addressing their issues is essential in the present context to develop their standard of living, considering which the researcher has conducted the present research.

3. REVIEW OF LITERATURE

India is rapidly urbanizing, and as the primary method of transportation there, road travel currently accounts for 87% of all CO2 equivalent emissions from the transportation sector, or over 142 million tons (MoEF, 2010). As a result, creating and promoting eco-friendly ways of transportation has received more attention.

In India, auto-rickshaws are an important form of intermediate public transportation (IPT), accounting for about 75% of the world's total auto-rickshaw population (Reynolds *et al.*, 2009). Compared to private motor vehicles, they provide cheaper, quicker, and more comfortable transportation with lower emissions (ITDP, 2009).

Gupta (1995) the study discovered that most of the auto drivers are illiterate and married. The family size is too big and one third of auto drivers are migrated peoples. Gupta (1995) the study revealed that in the angles of religion majority of auto-rickshaw drivers are Hindus. Though drivers belong to four religions such as Islam, Hindus and Christianity, Jainism. Further in the dimension of caste more than 75% of drivers belong to backward communities. Anand & Ravi (2003) the study discovered that from the process of licensing to driving his vehicle on the road the auto rickshaw driver suffers from a lack of information and awareness. There is no transparency in issuing license to him. Rane & Sasikumar (2002) the study found that most of auto drivers are speak local language or mother tongue with passengers. Mohan & Roy (2003) investigated the characteristics of auto-rickshaw drivers in Delhi, including age and family size. They claim that, at the time of their study, more than 90% of the drivers polled were under the age of 50, and more than 60% of drivers supported families of 5-8 people, showing that auto-rickshaws were an important source of employment for working-age men with dependents. Harding & Hussain (2010) in Delhi & Garg et al., (2010) in Chennai revealed that the majority of the drivers interviewed were between the age of 30 and 50. Harding & Hussain (2010) investigated the educational qualities of Delhi drivers and discovered that drivers ranged from illiterate to a handful with 8th and 9th standard schooling. It was discovered that drivers with higher levels of education were generally migrants who were unable to find work that matched their educational degrees in their home areas. Most cities' auto-rickshaw services are disorganized, with services offered by individual drivers (owner-drivers or renter-drivers) rather than organised fleet businesses. Owner-drivers own the car and the permit, whereas renter-drivers rent the vehicle from the vehicle owners for a single shift (10-12 hours) or an

entire day (24 hours) (Harding & Hussain, 2010). Due to the scarcity of new permits and the rising expense of existing ones, communities with closed permit systems often have a greater percentage of rented-drivers than owner-drivers. For instance, Garg et al., (2010) state that the auto-rickshaw industry in Chennai has shifted into rental driving, with over 70% of the drivers being rented-drivers, as a result of the city's high cost of credit caused by limited licenses. The government's fuel conversion (to CNG) strategy and permission requirements have reportedly contributed to an increase of rented-drivers in Delhi, according to Harding & Hussain (2010). Rana et al., (2013) operator's point of view, driving of the mode as an occupation involves lower investment cost, greater earning, more comfort and occupational freedom than other occupations available in local towns for low-income people. Singaravelu (2013) Found that the standards of living of auto drivers are very poor. Further it was found that they were work more but earn less. They were not able to satisfy their family needs due to less income. Bawa et al., (2014) the study highlighted that HIV-AIDS awareness-raising activities should continue with special attention to young people, migrants and unmarried auto-rickshaw drivers. Natarajan & Abdullah (2014) the study revealed that most of the auto rickshaw drivers are having 5 % additional source of income. Further it revealed family members of auto rickshaw drivers are getting monthly average income from below 5000 to more than 15000 with the help of range from 2 to 4 earning members. Natarajan & Abdullah (2014) found that Social organization plays a vital role in the perception of the auto drivers. That was proved through sensitivity analysis. Nandhi (2014) the results of the analysis suggested that migrant rickshaw drivers are potentially bankable despite their mobile lifestyle and uncertain income. This is reflected in the savings they accumulate on a regular basis and in the remittances made by the sample respondents. Despite their difficult living conditions and imperfect money storage, the poor manage to save, albeit in small and variable amounts. Ramachander et al., (2015) Auto drivers play a very important role in urban and semi-urban transport. They supplement the range of public transport. But the plight of drivers is a cause of concern. Auto rickshaw drivers come from economically disadvantaged class of society and most of them are educated till SSLC or less. Harding et al., (2016) the study revealed that the lower fuel cost for the CNG auto-rickshaws is better than fuel based auto rickshaw. Frank (2017) revealed that there was no significant association between knowledge and attitudes with selected demographic variables such as age, education level, marital status, experience, income, prior first aid information,

prior experience with first aid management, and availability of an in-vehicle first aid kit. Debbarma & Debnath (2017) the study found that most of the youth age groups are engaged in auto rickshaw driving profession for sustenance, bread and butter for their livelihood. This age group has the potentiality to work more because of the physical strength in their body. More than 60 years is found to be less because with a growing age they start to lose their physical strength to work for a long hour. Debbarma & Mitra (2017) Auto drivers play a very important role in urban and semi-urban transport. They supplement the range of public transport. But the plight of drivers is a cause for concern. Auto rickshaw drivers come from the economically disadvantaged class of society and most of them are educated till SSLC or less. Debbarma & Debnath (2017) the auto rickshaw service providers have their own house and none of the responders are found to live in rent houses. Niyaz Panakaje (2017) the study focused on the current socio-economic conditions of auto rickshaw drivers and the role of cooperatives in the socio-economic development of rural Muslim drivers in the study region. Further it found that the auto drivers are rendering valuable services in transportation industry in rural area. Mehra et al., (2017) the study is conducted on a solution built, to improve loan management for auto-rickshaw drivers in Bangalore. The study found that back - office solution would be helpful to the organization for developing the operations and supporting more informed decision making. Elango (2018) revealed that most of the auto drivers were not given proper status in the society, which leads to dissatisfaction in their job. Further it found that auto drivers earned minimum income from 3000 to 6000 per month which is not good enough to take care of themselves and family. Goud & Ram (2018) found that variables such as educational status, exposure to mass media, and exposure to extensions have been shown to be critical variables in influencing cotton farmers' communication behaviors. Further, it concluded that policy makers and administrators should be cautious when developing awareness programs related to the use of ICT tools. Subhashini (2019) Highlighted that Majority of respondents are youth and had school education only. Auto drivers are alcoholic due to their job. Further it found that most of the respondents are overloading in their auto due to high fuel price. The study advised to use LPG as fuel in order to reduce air pollution and fuel expenses.

4. RESEARCH GAP

Based on the extensive literature review following gaps have been identified:

- Most of the studies have been conducted on assessing the socio-economic condition of the rickshaw drivers. But only few studies have addressed the impact of socio-economic profile of the rickshaw drivers on their career satisfaction.
- Majority of the studies on career satisfaction has been conducted in the domain of organised sectors, but few studies have addressed career satisfaction of the rickshaw drivers.
- Few studies have seen the relationship between psychographic factors of the rickshaw drivers on their career satisfaction.
- No studies have addressed the mediating role of banking and union support on their career satisfaction.
- Few studies with respect to rickshaw drivers has been conducted in the region of Dakshina Kannada.
- No studies have considered impact of COVID-19 on Auto Rickshaw Drivers.
- No studies have collected opinion on electric vehicles by the auto drivers.

Hence, this research attempts to assess the impact of rickshaw drivers' demographic, socio-economic profile, psychographic factors and perception on their career satisfaction. Moreover, considering the gap researcher also focuses on understanding the relevance of work-family balance, bank and union support for the betterment of rickshaw drivers. Apart from that, researcher also attempts to assess the stress level of rickshaw drivers and how it affects their satisfaction and how it can be coped up has also been addressed. Overall, this study considers many internal and external factors along with socio-economic conditions which influence the lives of Auto Rickshaw drivers living in Dakshina Kannada district.

5. CONCEPTUAL MODEL

As researcher dogged into various studies to understand the working environment of rickshaw drivers, many factors which impact their professional aspects have been found. As per the studies rickshaw drivers' perception on professional aspects and psychographic factors such as life attitude, leisure time activities and psychological aspects determines their work family balance and career satisfaction. Moreover, banking support, work family balance and union support has a significant role in

enhancing career satisfaction of rickshaw drivers. In addition to this stress negatively affects the study variables, but stress management practices adopted by the rickshaw drivers can reduce the impact of stress. However, the role of demographic and socio-economic profile as the major factor of the study cannot be ignored on rickshaw drivers' professional aspects as per the literatures. Hence, the impact of demographic and socio-economic profile on their perception on professional, psychographic factors, stress and career satisfaction has been demonstrated in the model.

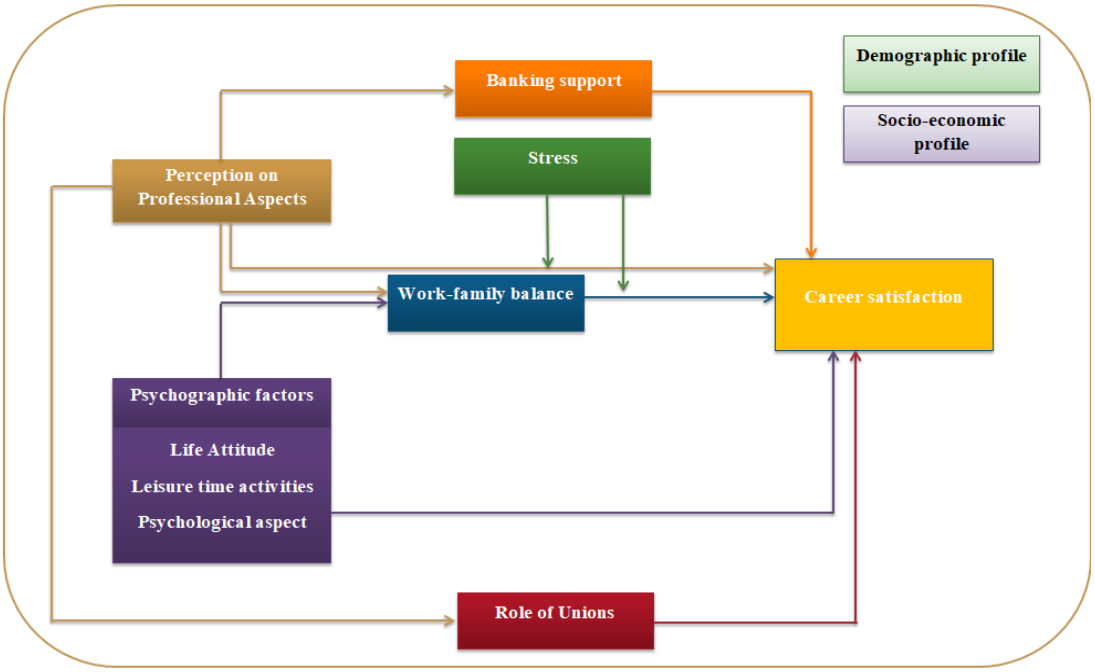

Figure 1: CONCEPTUAL MODEL

Source: Developed by the Researcher

6. RESEARCH QUESTIONS

- Whether rickshaw drivers' demographic and socio-economic profile affects their perception on professional aspects, psychographic factors and career satisfaction?
- Does rickshaw drivers' perception on professional aspects and psychographic factors contribute to their work-family balance and career satisfaction?
- Whether rickshaw drivers' perception and psychographic factors highly enhances their career satisfaction when they can maintain work family balance?
- Whether banking and union support is important for rickshaw drivers to get more career satisfaction?
- Does stress among rickshaw drivers impact their career satisfaction? And how do they cope-up with their stress?

7. RESEARCH OBJECTIVES

- To assess the influence of rickshaw drivers' demographic and socio-economic profile on their perception on professional aspects, psychographic factors and career satisfaction.
- To examine the effectiveness of rickshaw drivers' perception and psychographic factors on their work-family balance and career satisfaction.
- To understand the importance of work-family balance in the lives of rickshaw drivers.
- To analyze the role of banking and union support in enhancing rickshaw drivers' career satisfaction.
- To understand the impact of stress experienced by the rickshaw drivers on their career satisfaction and to identify the stress management practices.
- To understand the impact of COVID-19 and e-rickshaw in their professional life.
- To suggest measures to improve the Rickshaw drivers professional life.

8. RESEARCH HYPOTHESES

H1: Rickshaw Drivers' Perception on Professional Aspects, Psychographic factors and Career satisfaction is dependent on their Demographic and Socio-economic profile.

H2: Rickshaw drivers perceive that their professional aspects provide them with career satisfaction and enable work life balance.

H3: Work family balance and Career Satisfaction of the Rickshaw driver is determined by their psychographic factors.

H4: Rickshaw drivers' perception on professional aspects highly contribute to their career satisfaction through the mediation of work family balance.

H5: Rickshaw drivers' psychographic factors highly contribute to their career satisfaction through the mediation of work-family balance.

H6: Rickshaw drivers' perception on professional aspects highly contribute to their satisfaction through the mediation of banking support.

H7: Rickshaw drivers' perception on professional aspects highly contribute to their career satisfaction through the mediation of Trade Union.

H8: High Stress significantly moderates the relationship between Rickshaw drivers' psychographic factors and their career satisfaction.

H9: Stress significantly moderates the relationship between Rickshaw drivers' perception on professional aspects and their career satisfaction.

H10: High stress management significantly moderates the relationship between Rickshaw drivers' perception on professional aspects and their career satisfaction.

H11: The Higher stress management of rickshaw driver will moderate the relationship between perception on professional aspects and their career satisfaction.

9. RESEARCH DESIGN

NATURE AND SOURCES OF DATA

Social science research is the critical element for introducing, illustrating, and forecasting human behavior. The findings of research contribute to policymaking and academic advancement. These conclusions are based on responses to several questions posed to the sample group (Acharya, 2010). The present study also obtains primary information from the auto rickshaw drivers through structure questionnaire. Structured surveys contain pre-coded questions with well-defined skip patterns to follow the question sequence. Structured questionnaires are used in the majority of quantitative data gathering procedures. The benefits of such organized surveys include less conflicts, ease of administration, uniformity in replies, and ease of data management. In the present context, data collected from primary source includes rickshaw drivers Demographic Profile, Socio-economic Profile, problem faced by them, Work-family balance, Banking support, Impact of COVID-19, Opinion on Electric vehicles effect, Career satisfaction, Perception, Psychographic Analysis, Stress and Measures to improve socio-economic conditions.

Furthermore, secondary data also has been used in the present study. As a result of technical improvements, massive amounts of data have been collected, processed, and saved, and are now easily available for investigation. As a result, the use of pre-existing data for research and secondary data analysis is becoming more widespread (Johnston, 2014). Secondary information was acquired for the current study in order to identify the research gap, concepts, hypotheses, and difficulties. The researcher used census data to establish the population and sample size, as well as reports from government ministries, State Road Transport Authorities, Transport authorities for metropolitan areas, Regional Transport Authority, European Metropolitan Transport Authorities: EMTA, The Metropolitan Transport Authority in Europe, Ministry of Road Transport & Highways, Government of India, Department of Transport and Main Roads, U.S. Department of Transportation, Department for Transport- GOV.UK and Federal

Highway Administration. In addition, considerable information about rickshaw driver has been collected through internet searches, logs, blogs, websites, and libraries. Furthermore, the researcher studied hundreds of periodicals, research papers, newspapers, doctoral theses, and magazines on rickshaw drivers.

RESEARCH INSTRUMENT

A questionnaire as a research instrument is described as a document that contains questions and other sorts of elements meant to elicit data for analysis (Babbie, 1990). Questionnaires are used in surveys, experiments, and other forms of observation. People do, in fact, ask many questions in their daily lives to satiate their curiosity. Journalists, market researchers, spectators, and participants in various events pose a series of questions to others. They create an opinion or draw a conclusion based on the responses they hear. A comparable method in research is the use of a questionnaire or a collection of questions. The research questions are carefully crafted to elicit responses relating to the variables chosen for study. In current study questionnaire has been formulated considering study variables and components which further described in the below section.

COMPONENTS OF THE SURVEY QUESTIONNAIRE

Part I – Demographic Profile

Part II – Socio-Economic Profile

Part III – Psychographic Analysis

Part IV – Professional Aspects

PART V – Measures to improve Socio-Economic Conditions

USE OF SCALE IN THE QUESTIONNAIRE

The Likert scale is a popular psychometric instrument for assessing responses. This measuring scale includes a procedure that facilitates survey development and execution, coding and analysis, and survey design and administration (Li, 2013). In the present research, instrument nominal measurement scale has been used to measure demographic and socio-economic profile of the rickshaw drivers. Moreover, Psychographic factors, Perception on the Public and Government Support, rules and regulations of Government, problems faced as a rickshaw driver, Work-family balance, Reasons, Problems and benefits availed from Trade Unions, Banking support, Impact

of COVID-19, Opinion on Electric vehicles effect. Measures to improve Socio-Economic Conditions of Auto Drivers was measured using the Likert Scale i.e., "Strongly Agree-5, Agree-4, Neutral-3, Disagree-2, Strongly Disagree-1". Apart from these Stress was measured using Always-5, Very Often-4, Sometimes-3, Rarely-2, Never-1 scale and Career satisfaction was measured using 5-Highly Satisfied, 4-Satisfied, 3-Neutral, 2-Dissatisfied, 1-Highly Dissatisfied scale.

CONSTRUCTION OF RESEARCH TOOL

Table 1: Sources of Research Components

Sl. No.	Variables	Source
1	Socio-Economic Profile	Tigari H., & Santhosh, H. B. (2020); Kurosaki, T., Sawada, Y., Banerji, A., & Mishra, S. N. (2007); Singaravelu, K. (2013); Elango, L., Moieeson Thairiyam, D., & Karthiga Sharma, P. (2018); Melwani, V., Priya, A., Toppo, M., Sethia, S., Khan, A., & Melwani, S. (2018).
2	Psychographic Factors	Kumar, P. K., & Kumar, N. R. (2016); Hossain, M. J. A., Hasan, M., Hasanuzzaman, M., Khan, M., Rahman, Z., & Habib, M. A. (2023); Hsu, C. H., Kang, S. K., & Wolfe, K. (2002); Barak, B., & Rahtz, D. R. (1990); Gaffer, M. E. M. (2017); Awasthi, S., Pamei, G., Solanki, H. K., Kaur, A., & Bhatt, M. (2019); Anand, A., & Ravi, R. (2003); Mukherjee, S., & Das, K. C. (2022); Bates, L., Hawkins, A., Rodwell, D., Anderson, L., Watson, B., Filtness, A. J., & Larue, G. S. (2019).
3	Stress	Kaul, S., Gupta, A., Sarkar, T., Ahsan, S., & Singh, N. (2019); Melwani, V., Priya, A., Toppo, M., Sethia, S., Khan, A., & Melwani, S. (2018); Joshi, A., Reddy, R. H., & Agarwal, A. (2021); Reddy, P. S. (2020); Ahmed, N., & Rony, R. J. (2021); Shahrukh, M., Pervaiz, M., & Khatoon, N. (1995).
4	Perception on Professional Aspect	Walton, D. (1999); Dubljević, V., Douglas, S., Milojevich, J., Ajmeri, N., Bauer, W. A., List, G., & Singh, M. P. (2022); Bates, L., Hawkins, A., Rodwell, D., Anderson, L., Watson, B., Filtness, A. J., & Larue, G. S. (2019).
5	Problem Faced as a Rickshaw Driver	Natarajan, S., & Abdullah, T. S. (2014); Debbarma, D., & Mitra, S. (2017); Anand, A., & Ravi, R. (2003); Roy, A. (2016); Kalabamu, F. T. (1987); Singaravelu, K. (2013).
6	Work-Family Balance	Ranjan, R. (2015); Gambles, R., Lewis, S., & Rapoport, R. (2006); Ranjan, R., & Prasad, T. (2013); Hughes, J., & Bozionelos, N. (2007).
7	Reasons, Problems and Benefits Availed from Unions	Mukherjee S. (2018) & Christuraja S. (2006)

8	Banking Support	Ghosh, A., & Kalra, K. (2016), Pucher, J., Korattyswaroopam, N., & Ittyerah, N. (2004) Koch, A. H. (2021)
9	Impact of COVID-19	Ahmed, F., & Sifat, R. I. (2021), Sufian, A., & Hoque, M. J. (2022); Mandal, S. C., Boidya, P., Haque, M. I. M., Hossain, A., Shams, Z., & Mamun, A. A. (2021); Mustafa, F., Khursheed, A., Fatima, M., & Rao, M. (2021)
10	Opinion on Electric Vehicles Effect	Lairenlakpam, R., Thakre, G. D., Gupta, P., Singh, Y., & Kumar, P. (2017), Kumar, P. (2020), Saxena, A., & Shrivastava, B. (2022)
11	Career Satisfaction	Rai, A. (2019) Gu, G. Z., Yu, S. F., Zhou, W. H., Wu, H., Kang, L., & Chen, R. (2017)
12	Measures to Improve Socio-Economic Conditions of Auto Drivers	Natarajan, S., & Abdullah, T. S. (2014) Tigari, H., & Santhosh, H. B. (2020) Singaravelu, K. (2013) Elango, L., Moieeson Thairiyam, D., & Karthiga Sharma, P. (2018)

DEVELOPMENT AND VALIDATION OF QUESTIONNAIRE

1. Validity Testing
2. Reliability Testing

Validity Testing: Knowing what a questionnaire is designed to measure determines its validity. Validity describes how well the data obtained covers the real area of research (Ghauri, P., Grønhaug, K., & Strange, 2020). Furthermore, validation determines the validity of the inference and conclusion drawn from the questionnaire answers. As a result, present study has adopted content validity and constructs validity.

Content Validity: The process of analyzing the contents of the questionnaire items to see if they represent the complete theoretical construct of the planned model of the problem under examination is known as content validation. Following the formulation and reliability testing of a questionnaire, content validation may begin. A panel of specialists with the knowledge of the questionnaire's construction and the ability to evaluate content validation performs content validation. The content validation team examines the questionnaire questions and their suitability for measuring the constructs, as well as if the items chosen are appropriate for measuring the variables in the domain (Aithal & Aithal, 2020). In order to check the contents of the questionnaire, the tool was originally handed to five research academicians having a research exposure in the area of socio-economic development of marginalised section, who provided feedback on the questionnaire. Following that, five academicians with expertise in rural

development, social work, humanities, banking, commerce and management, economics, and psychology were asked to assess the instrument and provide feedback. Following that, one rickshaw driver and one union authority from each taluk was asked to weigh in. These comments were carefully considered, and the factors in the questionnaire were added, eliminated, or updated as needed. As a result of the topic experts' thoughts and suggestions, the questionnaire's content validity was validated, and certain adjustments were made to make the questionnaire clearer, more intelligible, and more meaningful.

Construct Validity: in order to test the validity of construct discriminant convergent validity has been used, the result of which is further explained in the table below.

Convergent Validity: This is a metric that relates to the degree to which the two constructs being assessed are theoretically and empirically connected. This type of parameter is employed in behavioural science research, such as management, social science, psychology, and so on (Aithal & Aithal, 2020).

Discriminant Validity: The amount to which one static inferred variable varies from other variables in the questionnaire is referred to as discriminant validity. Discriminant validity, also known as divergent validity, refers to an inferred variable that has a higher variance than measurement errors, unmeasured external effects, or other constructs within the conceptual framework (Aithal & Aithal, 2020).

Reliability Testing: A pilot survey was done among 50 respondents from five taluks in Dakshina Kannada district to minimize the overlooking mistakes and to finalize the interview schedule and measurement scale. Following the pilot survey, the scale's reliability and validity were verified using acceptable methodologies. Modifications to the interview schedule and measurement scales were made as needed. This procedure aided the researcher in making necessary changes to the questionnaire. The improvements were made following a thorough assessment and suggestions from experienced members. Following the pilot study, the researcher used Cronbach's alpha to confirm the data's dependability (Cronbach, 1951). Cronbach's alpha is the most often used metric for assessing internal consistency data. Normally, an alpha value of 0.7 to 0.8 is regarded as adequate. Reliability test result is also demonstrated along with validity.

Table 2: Results of Reliability and Validity Testing

Construct	No. of Items	Reliability		Validity			
		Composite Reliability	Cronbach Alpha	AVE	MSV	Convergent	Discriminant
Psychographic Factors	26	0.8709	0.8159	0.6689	0.6299	AVE>0.5	MSV<AVE
Stress	15	0.8329	0.7799	0.7569	0.8349	AVE>0.5	MSV<AVE
Perception on Professional Aspect	22	0.7129	0.6924	0.5709	0.6499	AVE>0.5	MSV<AVE
Problem	15	0.7619	0.7379	0.5609	0.6369	AVE>0.5	MSV<AVE
Work-family Balance	12	0.7059	0.7489	0.6809	0.6019	AVE>0.5	MSV<AVE
Reasons, Problems and benefits availed from Unions	14	0.8319	0.7709	0.6709	0.6539	AVE>0.5	MSV<AVE
Banking Support	13	0.7429	0.7479	0.8349	0.7569	AVE>0.5	MSV<AVE
Impact of COVID-19	8	0.71583	0.701	0.5709	0.65283	AVE>0.5	MSV<AVE
Opinion on Electric vehicles effect	24	0.83583	0.78283	0.7569	0.83783	AVE>0.5	MSV<AVE
Career Satisfaction	5	0.87383	0.81883	0.6689	0.63283	AVE>0.5	MSV<AVE
Measures to improve Socio-Economic Conditions	22	0.76483	0.74083	0.5609	0.63983	AVE>0.5	MSV<AVE

SAMPLE DESIGN

Population and Sample Size: The population of this study includes all the rickshaw drivers working in Dakshina Kannada district. Sample has been calculated using Taro Yamane formula where the researcher has used proportionate stratified random sampling technique.

Table 3: Sample Size

Taluks	Towns	Villages	Auto	Proportion
Bantwal	10	72	4756	51
Belthangady	2	79	6137	66
Kadaba	0	42	1603	17
Mangalore	25	51	14897	159
Moodabidri	1	23	3514	38
Puttur	2	31	3761	40
Sullia	1	33	2405	25
Total			**37073**	**396**

Source: Dakshina Kannada District at a Glance, 2021.

Taro Yamane's formula

$n=N/1+N(e^2)$

$n= 37073/1+37073\ (0.05^2)=396$

VARIABLES/FACTORS USED IN THE STUDY: As mentioned above, a number of elements and constructs have been developed based on earlier investigations that are pertinent to the conceptual model. This study uses research tools for bank customers and workers to look into the relationship between these dimensions. The full explanation of these variables has been provided in the table below;

Table 4: Variables Used in Questionnaire-1

Sl. No.	Variables		
1.	Demographic Profile	Age	
		Gender	
		Marital Status	
		Residence Location	
		Education	
		Occupation	
2.	Psychographic Factors	Life Attitude	5
		Leisure Time Activities	8
		Psychological Aspects	13
3.	Socio-economic Profile		27
4.	Stress		15
5.	Perception on Professional Aspect		22
6.	Problem Faced as a Rickshaw Driver		15
7.	Work-family Balance		12
8.	Reasons, Problems and benefits availed from Unions		14
9.	Banking Support		13
10	Impact of COVID-19		8
11	Opinion on Electric Vehicles Effect		24
12	Career Satisfaction		5
13	Measures to improve Socio-Economic Conditions of Auto Drivers		22

TESTING OF STATISTICAL ASSUMPTIONS

There are assumptions behind every statistical procedure, some of which are more severe than others. Some other cases, challenging these presumptions has no impact on the important study findings. In other cases, assumptions will be broken, reducing the value of the research. All quantitative journal papers, theses and dissertations must show that the data they use are consistent with the method's underlying assumptions (Garson, 2012). Verify the data has a normal distribution before performing a parametric or non-parametric test. In the present study, the assumptions of normality,

simplicity of the scatter plot, linearity, and multicollinearity were used to validate the data. These are all prerequisites for structural equation modeling (SEM). Using linear and multicollinearity, regression analysis that has been used to verify the claim.

RESEARCH TOOLS AND SOFTWARE PACKAGE USED

1. Reliability Test
2. Validity Test
3. Percentage Analysis
4. Descriptive Analysis
5. Independent Sample t-test
6. One-way ANOVA
7. Simple Linear Regression
8. Multivariate Regression Analysis
9. Structural Equation Modeling (SEM)

SOFTWARES USED

This study heavily relied on current statistical techniques, information, and a variety of research database resources. IBM SPSS Statistics 26, AMOS 23 and Microsoft Excel 2010 were significantly used in this study. To create straightforward frequency and two-way tables, two- or three-dimensional charts and diagrams, and other simple charts and diagrams, data from earlier studies was gathered and sourced using MS Excel 2010. These sources included Google Scholar, Science Direct, Web of Science, JSTOR, N-List and others. Descriptive and inferential analysis, such as chi-square, t-test, ANOVA, regression analysis, descriptive statistics, normality assumptions and other test is performed using the IBM SPSS 26 software. For Structural equation modelling AMOS 23 has been used.

10. CHAPTER LAYOUT

Present research report has been broadly classified into 6 chapters by considering the sequential flow of research content for the better understanding of the researchers which is further described below;

Chapter 1 – Introduction: Chapter 1 introduces the study area by providing brief notion on Importance of Transportation, Road transport and development, Public Transport in India, Evolution of Rickshaw in World context, History of Rickshaw in India, Profile of study area. Moreover, this chapter exhibits the objectives, significance,

research question, problem statement, research gap, hypothesis, chapter layout of the research report and research design. It includes describing the nature and sources of the data to describe the research instrument, scale used in the study, construction of the research instrument, development and validation, sampling design, variables/factors used in the study, testing hypothesis, and using various research tools and software packages for the analysis.

Chapter 2 – Review of Literature: Chapter 2 broadly summarises the numerous literatures pertaining to the study by dividing it into various sections such as Socio-economic and Psychographic characteristics, Operational Characteristics, Problems and challenges faced by Auto rickshaw drivers, Training for auto rickshaw drivers, Public and Government support, Impact of COVID-19 and Electric vehicles on Auto drivers,and the last section addresses Summary of Literature review.

Chapter 3 – Conceptual Framework: Additionally, in chapter 3 the conceptual and theoretical foundations of the research variables are covered, providing a thorough grasp of the ideas, concepts, and potential links associated with each variables of the study.

Chapter 4 – Analysis and Interpretation of Data: This chapter has been divided into 3 segments. A percentage analysis is included in the opening section. The descriptive analysis in the second section uses a fundamental mean and standard deviation. The third section evaluates hypothesis using statistical techniques such as the independent sample t-test, one-way ANOVA, simple regression (multi-group and multiple regression analysis), and structural equation modelling (SEM). The Analysis of Moment Structures (AMOS) tool, together with correlation and regression study, was used to conduct the route analysis. Both tabular and visual representations are used to present the results. The Standard Statistical Package for Social Sciences (SPSS) version 24.0 program was used to analyse the data.

Chapter 5 – Findings, Suggestions and Conclusion: Last chapter is categorised into three sections; in each of the following major headings: sample profile, construct-related outcomes, and hypothesis-related findings. Additionally, this chapter gives recommendations to rickshaw drivers, financial institutions, the Ministry of Road Transport and Highways, the government, local authorities, and trade unions based on the study results. The chapter ends by suggesting potential future research avenues for the current study.

11. SIGNIFICANCE OF THE STUDY

India is undergoing unprecedented levels of both urbanization and expansion in its transportation infrastructure. Through the construction of new infrastructure, the government has effectively intervened to relieve traffic congestion. However, in many Indian metropolises, traffic jams, air pollution, and traffic deaths are all too typical. The convoluted auto-rickshaw eco-system only makes things more chaotic. Not only are auto-rickshaws' informal economies a social and economic issue, but they also pose a significant ecological risk. A few social businesses have entered the market to help the system achieve eco-balance (Natarajan & Abdullah, 2014). An auto rickshaw is a sort of hired vehicle with a driver that may transport a single passenger or a small group of passengers. An auto rickshaw transports passengers to and from their desired place. This is in contrast to other types of public transportation in which the pick-up and drop-off sites are decided by the service provider rather than the passenger (Ranjan, 2015). In this context, Stress for auto-rickshaw drivers is attributed to sociodemographic and environmental variables, which compromises the safety of the driver and passengers (Joshi et al., 2021). Hence, it is pertinent to understand the stress level faced by the rickshaw drivers and understand their perception on professional aspects by addressing the various support which provides them career satisfaction. The purpose of this study is to explore the experience of auto rickshaw drivers with respect to the socio-economic and psychographic profile. The study is more important to know the standard of living of auto drivers in Dakshinna Kannada district.

12. PRACTICAL IMPLICATION OF THE STUDY

The study findings are crucial because they provide light on the complexities of work in the lives of auto rickshaw drivers. Based on the findings of this study, the researcher offers strategies for auto rickshaw drivers to maintain a work-life balance and tackle stress. Moreover, the study has addressed the importance of banking and union support which can enhance Rickshaw drivers' lives by providing additional financial and non-financial assistance. This study exaggerates the financial institutions to realise their role in improving their socio-economic profiles and hence, the results can be considered by the financial institutions to initiate the liberal financial assistance. Furthermore, the study has found the insignificant role of unions in improving the lives of rickshaw drivers; this study will drive unions to rethink their assistance policies in improving the lives of rickshaw drivers.

In addition, this study also provides theoretical contributions to the existing body of knowledge. As per the literature gap found in this study, it highlights lack of studies with respect to career satisfaction, stress and work life balance among rickshaw drivers which argues on measuring the psychographic satisfaction of other internal and external unorganised sector workers that is essential and fills the knowledge gap.

13. LIMITATIONS OF THE STUDY

The current study has certain drawbacks. Perception measurement is susceptible to restrictions at every level, some of which are listed below;

- The research was limited to the Karnataka state, in the district of Dakshina Kannada. Although research in a given field delivers the most trustworthy data, generalization cannot be achieved solely on the findings of this study.
- The research is mostly based on the opinions of the sample respondents as gathered through questionnaires. Because of their lack of education and awareness, several of them provided inadequate replies to some questions. In certain circumstances, the responses are approximations based on personal judgment.
- The survey only included rickshaw drivers, thus other drivers' thoughts and reactions may differ. The results may be biased when applied to other drivers, such as heavy drivers in the Dakshina Kannada district.
- Respondents were unwilling to submit personal information such as occupation, income, family members, asset data, and other socioeconomic status due to income tax, penalty payment, and deletion of BPL ration card, among other things.
- Suggestions are based on the researcher's personal observations in certain situations, while the study's findings and suggestions are based on the study regions of Dakshina Kannada district.

14. KEY FINDINGS OF THE STUDY

Key Findings on Personal Profile of Rickshaw Drivers

- As per the percentage analysis, majority (39.1%) of the rickshaw drivers belong to the age group of 45 and above, 27% of the rickshaw drivers belong to the age group of 25 to 35, (25.8%) of the rickshaw drivers belong to the age group of 35 to 45.
- Greater numbers (97.7%) of the respondents are male and remaining (2.3%) of the respondents is female.
- Majority (63.6%) of the rickshaw drivers are married and 28.0% of the rickshaw drivers are unmarried/singles.

- 56.3% of the respondents live in rural areas and remaining (43.7%) respondents live in urban areas.
- Majority (40.2%) of the rickshaw drivers have primary level of education and 32.8% of the rickshaw drivers have secondary level of education
- Greater numbers (94.9%) of the respondents are full time auto driver and remaining (5.1%) of the respondents is part time auto driver.

Key Findings on Socio-Economic profile of Rickshaw Drivers

- Most (68.7%) of the respondents have nuclear family, (23.2%) of the respondents have joint family.
- 60.1% of the respondents are Hindus, 24.5% of the respondents are Muslims and remaining 15.4% of the respondents are Christians.
- 52.8% of the respondents belong to OBC category; 30.3% of the respondents belong to General category.
- Majority 46.2% of the respondents mother tongue is Tulu, 24.5% of the respondents mother tongue is Beary, 15.4% of the respondents mother tongue is Konkani.
- 42.9% respondents family members are less than 4, 36.9% of the respondents family members are between 4 to 6.
- 78.0% of the respondents have their own house; 20.2% of the respondents have rented house.
- 44.9% of the respondents own less than 10 cents of land, 30.3% of the respondents own 10 cents to 50 cents of land.
- 69.2% of the respondents don't have any other source of income, 15.9% of the respondents have wage income.
- 48.5% of the respondents have income Rs.5000-10000, 42.4% of the respondents have income Rs.10000-25000.
- 53.8% of the respondents have one earning member in the family, 37.4% of the respondents' family have two earning members.
- 28.54% of the respondents own Scooter/ Bike, 6.57% of the respondents own Light Motor Vehicle Car.
- 47.22% of the respondents stopped going to school/ college because of lack of money, 39.39% of the respondents stopped going to school/ college because of lack of interest, 35.61% of the respondents stopped going to school/ college because they failed at the grade.

- 21.0% of the respondents have chosen this profession for self-employment, 21.0% of the respondents chosen this because of lack of opportunities.
- 85.4% of the respondents have chosen this profession because of self-interest, 7.6% of the respondent's relatives influenced to take auto driving as a profession.
- 71.0% of the respondents have self- owned auto rickshaw, 26.0% of the respondents are hired as auto drivers.
- Most 56.8% of the respondents used gas as fuel, 23.5% of the respondents used Petrol as fuel, 13.6% of the respondents used Diesel as fuel and remaining 6.1% of the respondents used Electricity as power to the auto rickshaw.
- 55.81% of the respondents took money from banks, 41.92% of the respondents purchase from their own fund.
- 62.6% of the respondents have not taken loan for which they are responsible to repay and the remaining 37.4% of the respondents have taken a loan.

Key Findings on Variables of the Study

Problems Faced by the Rickshaw Drivers

- Cost of fuel being too high (MS=4.6086) seems to be the major problem faced by the rickshaw driver.
- But frequent meddling of traffic police (M=2.3207) seems to be the less likely faced problem as a rickshaw driver.

Positive Statement on Work Family Balance

- Most of the rickshaw driver feels happier because of their work (M=3.9773).
- They have energy to pursue their hobbies because of their job as rickshaw driver is less agreed statement.

Negative Statement on Work Family Balance

- Majority of the rickshaw drivers consider their occupation as challenging (M=2.7929).
- They don't like the time spent for leisure activities was least agreed statement (M=2.2399).

Reasons for Joining Trade Unions

- No political strength (M=3.1086) seems to be the major reason for joining trade union.

- Not recognised much by others (M=2.7298) seems to be the least agreed reason for joining trade union.

Benefits of Trade Union

- During accident, trade union provides support (M=3.7702) seems to be the most rated benefits of trade union.
- They provide Job security (M=2.7197) seems to be the least agreed statement as a benefit of trade union.

Problems Concerning of Trade Union

- Politically oriented Union (M=2.6389) seems to be major problems faced by the rickshaw drivers as a member of trade union.
- No confidence in the Leaders (M=2.5000) seems to be the least agreed problem.

Positive Statements on Banking Support

- Transaction time being fast and quick (M=3.6010) seems to be the major banking support for the rickshaw drivers.
- But rickshaw drivers show low rating for mobile banking being the reason for increasing the no. of passengers (M=2.7626).

Negative Statements on Banking Support

- Rickshaw drivers highly rate Server problems (M=3.9167) to be the major negative aspect concerning the bank support.
- Payment delays when work is mediated by platform aggregators (M=2.8737) seems to be the least agreed negative statement.

Impact of COVID-19 on Rickshaw Drivers

- Having drastic income losses (M=4.1591) seems to be the major impact faced by the rickshaw drivers.
- Rickshaw drivers' unwillingness to pay house and rickshaw rent (M=3.2045) seems to be the least agreed impact due to COVID-19.

Positive Opinion on Electric Vehicles Effect

- Rickshaw drivers highly opined that ER is great initiative towards green India (M=4.4545).

- The socio-economic and educational background of ER drivers are better than conventional rickshaw drivers (M=2.6439) seems to be the least agreed opinion on electric vehicle.

Negative Opinion on Electric Vehicles Effect

- Lack of charging points and parking spaces (M=4.1869) seems to be the major negative opinion on electric vehicle.
- Most of the ER drivers unlawfully carry more number of passengers then recommended (M=2.2854) seems to be the least agreed opinion on electric vehicle.

Measures to Improve on Electric Vehicles

- Electric rickshaw should offer greater mileage (M=4.3434) seems to be the most rated measures to improve on electric vehicles.
- Separate lanes for operation must be made available for safe operation of electric vehicles (M=2.4217) seems to be the least recommended to improve electric vehicle.

Career Satisfaction

- Conditions of my life is close to my ideals (M=3.9091) seems to be the major career satisfaction experienced by the rickshaw drivers.
- Progress they have made towards meeting their overall career goals (M=2.4217) seems to be the least agreed indicator of career satisfaction.

Satisfaction on Personal Life

- Progress they have made towards meeting their goals for income (M=3.7146) seems to be the major parameters of their satisfaction level on personal life.
- They showed low agreement level on them getting important things that that they want in life (M=2.7576).

Positive Perception on Public and Government Support

- Passenger's satisfaction and gratitude gives them motivation to continue in this profession (M=4.5581) seems to be the highly rated perception.
- Profession improving their health (M=2.5354) seems to be the least agreed perception.

Negative Perception on Public and Government Support

- Rickshaw drivers' highly perceive that they cannot become rich with this job (M=4.0530).
- Their perception on manual work (M=2.5354) being hard seems to be the least agreed statement.

Auto Drivers Perception towards Rules and Regulations of Government

- Rickshaw drivers highly perceive that they are benefited from Karnataka Driver Scheme during pandemic (M=4.2121).
- Rickshaw drivers showed low perception level on having old age protection (M=2.7879).

Psychographic Factors

Life Attitude

- Rickshaw drivers highly opined that financial security is very important to them (M=4.4848).
- But rickshaw drivers high low opinion on social status being an important part of their life (M=4.0227).

Leisure Time Activities

- Most of the Rickshaw drivers talk to other drivers (M=4.5732) during their leisure time.
- But they showed low agreement level on engaging themselves in social media (M=3.0556) during their leisure time.

Psychological Aspect

- Rickshaw drivers highly agree that they help people or strangers (M=4.4798).
- But they showed low agreement level on having Fun and enjoyment in life being important to them (M=2.7449).

Stress and Health Issue

- Rickshaw drivers highly agree that they face union bullying (M=2.8611).
- But showed low agreement level on having conflict with other drivers (M=1.6768) as a stress component.

Stress Management

- Rickshaw drivers highly agree that they pray to God (M=4.0606) when they face stress in their job.
- But Consume alcohol/tobacco and engage in gambling (M=2.1540) seems to be lowest stress management practices.

Measures to improve Socio-Economic Conditions

- Rickshaw drivers highly recommend reasonable medical insurance (M=4.8131).
- But rickshaw drivers show low agreement level on as the price of auto rickshaw spare parts has been high, the government should take initiative to lower the spare parts price by reducing the tax (M=2.9874).

Key Findings on Hypotheses Testing

Table 5: One-way ANOVA and Independent Sample t-test Results

Sl. No.	Independent Variable	Dependent Variable	Significance	Result
H1: Rickshaw Drivers' Perception on Professional Aspects, Psychographic factors and Career satisfaction is dependent on their Demographic and Socio-economic profile.				
1.	Age	Perception	S	H1 is Accepted
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	S	
	Marital Status	Perception	S	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	S	
	Gender	Perception	NS	
		Psychographic Factors	NS	
		Stress	S	
		Career Satisfaction	S	
	Residence	Perception	NS	
		Psychographic Factors	NS	
		Stress	S	
		Career Satisfaction	NS	
	Education Level	Perception	S	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	S	
	Nature of Occupation	Perception	S	
		Psychographic Factors	NS	
		Stress	NS	
		Career Satisfaction	NS	

	Family Status	Perception	NS	
		Psychographic Factors	NS	
		Stress	NS	
		Career Satisfaction	S	
	Religion	Perception	NS	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	S	
	Household Category	Perception	S	
		Psychographic Factors	NS	
		Stress	S	
		Career Satisfaction	NS	
	Mother Tongue	Perception	S	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	S	
	Number of Family Members	Perception	S	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	NS	
	House Ownership Status	Perception	S	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	S	
	Land Ownership Status	Perception	S	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	NS	
	Family Income	Perception	NS	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	NS	
	Number of Earning Members in the Family	Perception	S	
		Psychographic Factors	S	
		Stress	S	
		Career Satisfaction	NS	

Key Findings on Regression Analysis

Table 6: Results of Regression Analysis

Sl. No.	Independent Variable	Dependent Variable	Test	Result
H2: Rickshaw drivers perceive that their professional aspects provide them with career satisfaction and enables work life balance.				
1	Positive perception with respect to public and Government support	Career Satisfaction	NS	H2 is Rejected

	Negative perception with respect to public and Government support	Career Satisfaction	NS	
	Positive perception with respect to public and Government support	Work Life Balance	S	
	Negative perception with respect to public and Government support	Work Life Balance	S	
	Positive perception with respect to public and Government support	Work Life Imbalance	NS	
	Negative perception with respect to public and Government support	Work Life Imbalance	S	
H3: Work family balance and Career Satisfaction of the Rickshaw driver is determined by their psychographic factors.				
2	Psychographic Factors	Work Family Balance	S	H3 is Accepted
	Psychographic Factors	Work Family Imbalance	S	
	Psychographic Factors	Career Satisfaction	S	
H8: High Stress significantly moderates the relationship between Rickshaw drivers' psychographic factors and their career satisfaction.				
3	Psychographic Factors	Low	NS	H8 is Accepted
		Moderate	S	
		High	S	
H9: Stress significantly moderates the relationship between Rickshaw drivers' perception on professional aspects and their career satisfaction.				
4	Perception on Professional Aspects	Low	NS	H9 is Rejected
		Moderate	NS	
		High	S	
H10: High Stress management significantly moderates the relationship between Rickshaw drivers' perception on professional aspects and their career satisfaction.				
1.	Psychographic Factors	Low	NS	H10 is Accepted
		Moderate	S	
		High	S	

Key Findings on Correlation

Table 7: Result of Correlation

Sl. No.	Variables	Moderator	Test	Result
H11: The Higher stress management of rickshaw driver will moderate the relationship between perception on professional aspects and their career satisfaction.				
1	Perception on professional aspects and career satisfaction	Low	NS	H11 is Accepted
		Moderate	S	
		High	S	

Major Findings on Structural Equation Modelling (SEM)

Table 8: Result of Structural Equation Modelling

Sl. No.	Hypotheses	Relationship	Estimates	P value	Result
1	H4: Rickshaw drivers' perception on professional aspects highly contributes to their career satisfaction through the mediation of work-family balance.	WLB<--PPA	.152	S	H4 is Accepted
		CS<--- WLB	.411	HS	
		CS<--- PPA	.278	S	
		Total	.340	HS	
		Direct	.133	HS	
		Indirect	0.207	HS	
2	H5: Rickshaw drivers' psychographic factors highly contribute to their career satisfaction through the mediation of work-family balance.	WLB<---PF	.026	HS	H5 is Accepted
		CS<--- WLB	.397	S	
		CS<--- PF	.214	HS	
		Total	.224	HS	
		Direct	.214	HS	
		Indirect	0.010	HS	
3	H6: Rickshaw drivers' perception on professional aspects highly contributes to their satisfaction through the mediation of banking support.	BSS<---PPA	.123	S	H6 is Accepted.
		CS<--- PPA	.139	S	
		CS<--- BSS	.192	HS	
		Total	.163	HS	
		Direct	.139	HS	
		Indirect	0.024	HS	
4	H7: Rickshaw drivers' perception on professional aspects highly contributes to their career satisfaction through the mediation of Trade Union.	TU<---PPA	.270	HS	H7 is Rejected
		CS<--- PPA	.167	S	
		CS<--- TU	-.016	NS	
		Total	.163	HS	
		Direct	.167	HS	
		Indirect	-0.004	NS	

15. SUGGESTIONS

Suggestions for Rickshaw Drivers

⇒ As per the findings cost of fuel being too high is the major problem which makes their earnings insufficient, hence, rickshaw drivers can plan out other source of income such as advertising, as auto-rickshaw vehicles form a good media of advertisement.

⇒ The complaint book issued by RTO should be compulsorily carried by the rickshaw driver to enable the commuters to record their experience with the driver which can enhance customer experience. As, Passenger's satisfaction and gratitude gives them motivation to continue in this profession according to the findings.

⇒ Auto-drivers should be given identity cards with a photo, their name, and their registration number, and they are required to wear it.

⇒ As the study proved that Rickshaw drivers' psychographic factors highly contribute to their career satisfaction through the mediation of work-family balance, rickshaw drivers shall build up good life attitude, productive leisure time activities and positive psychological aspects by maintaining good family work relationships.

Suggestions for Financial Institutions

⇒ 62.6% of the respondents have not taken loan hence; in order to give them financial security all qualifying ARDs should get loans from nationalized banks as part of their program.

⇒ A separate co-operative society should be established only for ARDs to supply genuine spares, tubes and types. Separate index for petrol, diesel oil prices and auto-spares must be calculated and such index linked auto fare system should be introduced.

Suggestions for Ministry of Road Transport and Highways/Government/ Local Authorities

⇒ The roadways shall be adequately maintained by the municipal corporate authority. Government hospitals, industrial undertakings, and NGOs should regularly provide free medical examinations to the auto-rickshaw drivers. Rickshaw drivers strongly suggest reasonable medical services.

⇒ There should be a sufficient number of parking stoppages at locations along different routes to reduce traffic congestion.

⇒ Auto stands equipped with all basic amenities including fresh water, clean water, comfortable sitting, shelters, etc. The auto-rickshaw flow frequency in the stand is steady. Thus, the problem of traffic gridlock is not developing.

⇒ The government should have control over the tariff structure, which is dependent on trip distance, to improve it. The current budget suggestions and the living index should be used to automatically adjust the ticket each year.

⇒ To enhance their living conditions, the government and/or local authorities should give precedence to ARDs while allocating homes under the "Prime Minister Aawas Yojana."**.**

⇒ Road development projects should be done in a fast and systematic manner. Delay in projects cause problems to ARDs.

⇒ Dust is an issue for most of the drivers face, there should be some effort to reduce this problem.

Suggestions for Trade Unions

⇒ Politically oriented Union and union bullying seems to be major problems faced by the rickshaw drivers as a member of trade union, political gain must be reduced in the union by giving equal opportunity to all the members without any illegal influence.

⇒ In order to provide tubes and kinds to the underprivileged auto-driver on a credit basis, unions should open auto spare parts businesses.

⇒ The unions should also recognize good and accident-free drivers.

⇒ Mediating role of trade union showed insignificant effect in enhancing career satisfaction of rickshaw drivers as per the findings, therefore trade unions must implement significant programmes, facilities, activities for the betterment of rickshaw drivers' socio-economic status.

16. CONCLUSION

Contribution of Rickshaw drivers in the progress of community cannot be undermined, therefor this study was conducted to assess socio-economic profile, psychographic factor and perception which influence their career satisfaction through banking support, work life balance and trade union support. As per the results Rickshaw Drivers' Perception on

Professional Aspects, Psychographic factors and Career satisfaction is dependent on their Demographic and Socio-economic profile. Furthermore, the study also found that when Rickshaw drivers take support from banks and maintain work life balance they show more career satisfaction. As far as the stress faced by auto drivers is concerned they face less stress but when they face stress they can efficiently manage them with various coping strategies which again enhances their career satisfaction. Previously, most of the studies assessed the career satisfaction, stress, work life balance of the employees or workers engaged in organised sector, but this study has made an attempt to assess rickshaw drivers stress level, career satisfaction and work life balance. As per the findings there are various problems and challenges faced by the rickshaw drivers which may demotivate them to remain in this profession. Hence, the study has made various recommendation which is further discussed in the section.

17. DIRECTION FOR FUTURE RESEARCH

Every research builds a foundation for future information accumulation in a particular field, that fosters on-going development in that field. This study has also identified a number of directions for more research in this field:

⇒ Further research using the similar concepts such as perception, psychographic factors, work life balance, career satisfaction, trade union support, stress level and banking support can be undertaken especially on electric auto rickshaw drivers.

⇒ Further similar study can also be conducted in a different period and on different population.

⇒ Moreover, similar conceptual model can be implemented on heavy vehicle drivers who are working in other transport fields.

⇒ Comparative study on fuel based auto with that of electric auto can be conducted.

⇒ Economic and educational level of auto drivers family members can be studied.

⇒ Impact of private vehicles on public transport in a particular region can be assessed.

18. REFERENCES

Acharya, B. (2010). Questionnaire design. *Central Department of population studies*.

Ahmed, F., & Sifat, R. I. (2021). The impact of the COVID-19 pandemic on the mental health of the rickshaw-puller in Bangladesh. *Journal of Loss and Trauma*, *26*(8), 782-789.

Ahmed, N., & Rony, R. J. (2021). Understanding self-reported stress among drivers and designing stress monitor using heart rate variability. *Quality and User Experience*, *6*(1), 1-21.

Anand, A., & Ravi, R. (2003). Auto-Rickshaw Drivers in Delhi. *Economic and Political Weekly*, *38*(34), 3544-45.

Awasthi, S., Pamei, G., Solanki, H. K., Kaur, A., & Bhatt, M. (2019). Knowledge, attitude, and practice of first aid among the commercial drivers in the Kumaon region of India. *Journal of family medicine and primary care*, *8*(6), 1994.

Barak, B., & Rahtz, D. R. (1990). Cognitive age: Demographic and psychographic dimensions. *Journal of Ambulatory care marketing*, *3*(2), 51-65.

Bates, L., Hawkins, A., Rodwell, D., Anderson, L., Watson, B., Filtness, A. J., & Larue, G. S. (2019). The effect of psychosocial factors on perceptions of driver education using the goals for driver education framework. *Transportation research part F: traffic psychology and behaviour*, *66*, 151-161.

Christuraja, S. (2006). A socio-economic study of auto rickshaw operators in Tiruchirappalli District of Tamil Nadu.

Debbarma, D., & Mitra, S. (2017). Occupational health problems of the auto rickshaws service providers in Agartala city: a case study of Nagerjala motor stand. *International Journal of Current Research and Review (IJCRR)*, *9*(22), 16.

Dubljević, V., Douglas, S., Milojevich, J., Ajmeri, N., Bauer, W. A., List, G., & Singh, M. P. (2022). Moral and social ramifications of autonomous vehicles: a qualitative study of the perceptions of professional drivers. *Behaviour & Information Technology*, 1-8.

Elango, L., Moieeson Thairiyam, D., & Karthiga Sharma, P. (2018). A study on socio-economic and health status of auto drivers of Tiruppatur, Vellore District. *International Journal of Current Research in Life Sciences*, *7*(2), 1148-1151.

Gaffer, M. E. M. (2017). *Knowledge, Attitude, And Practice Of Rickshaw Drivers Regarding Air Pollution, Karary, 2017* (Doctoral dissertation).

Gambles, R., Lewis, S., & Rapoport, R. (2006). *The myth of work-life balance: The challenge of our time for men, women and societies*. John Wiley & Sons.

Ghauri, P., Grønhaug, K., & Strange, R. (2020). *Research methods in business studies*. Cambridge University Press.

Ghosh, A., & Kalra, K. (2016). Institutional and financial strengthening of intermediate public transport services in Indian cities. *Transportation Research Procedia*, *14*, 263-272.

Gu, G. Z., Yu, S. F., Zhou, W. H., Wu, H., Kang, L., & Chen, R. (2017). Influencing factors for job satisfaction in train drivers in a railway bureau: an analysis of 1413 cases. *Zhonghua lao dong wei sheng zhi ye bing za zhi= Zhonghua laodong weisheng zhiyebing zazhi=Chinese journal of industrial hygiene and occupational diseases*, *35*(1), 43-47.

Hossain, M. J. A., Hasan, M., Hasanuzzaman, M., Khan, M., Rahman, Z., & Habib, M. A. (2023). Affordable Electric Three-Wheeler in Bangladesh: Prospects, Challenges, and Sustainable Solutions. *Sustainability*, *15*(1), 149.

Hsu, C. H., Kang, S. K., & Wolfe, K. (2002). Psychographic and demographic profiles of niche market leisure travelers. *Journal of Hospitality & Tourism Research*, *26*(1), 3-22.

Hughes, J., & Bozionelos, N. (2007). Work-life balance as source of job dissatisfaction and withdrawal attitudes: An exploratory study on the views of male workers. *Personnel Review*.

Joshi, A., Reddy, R. H., & Agarwal, A. (2021). The prevalence of stress, stressors and coping mechanisms and the socio-demographic factors associated among the auto-rickshaw drivers in Bengaluru city, India. *Journal of family medicine and primary care*, *10*(7), 2546.

Joshi, A., Reddy, R. H., & Agarwal, A. (2021). The prevalence of stress, stressors and coping mechanisms and the socio-demographic factors associated among the auto-rickshaw drivers in Bengaluru city, India. *Journal of family medicine and primary care*, *10*(7), 2546.

Kalabamu, F. T. (1987). Rickshaws and the traffic problems of Dhaka. *Habitat International*, *11*(2), 123-131.

Kaul, S., Gupta, A., Sarkar, T., Ahsan, S., & Singh, N. (2019). Substance abuse and depression among auto-rickshaw drivers: A study from the national capital region of Delhi, India. *Indian Journal of Medical Specialties*, *10*(3), 143-143.

Koch, A. H. (2021). Implementing Frugal Innovation: Leveraging Constraints as Opportunities for Electric Rickshaws in India. In *Frugal Innovation and Its Implementation* (pp. 219-232). Springer, Cham.

Kumar, P. (2020). Customer Awareness and Perception towards E-rickshaws in Thiruvananthapuram. *Mukt Shabd J.*, *9*(4), 397-402.

Kumar, P. K., & Kumar, N. R. (2016). A study on factors influencing the consumers in selection of cab services. *International Journal of Social Science and Humanities Research*, *4*(3), 557-561.

Kurosaki, T., Sawada, Y., Banerji, A., & Mishra, S. N. (2007). *Rural-urban migration and urban poverty: Socio-economic profiles of rickshaw pullers and owner-contractors in North-East Delhi*. Institute of Economic Research, Hitotsubashi University.

Lairenlakpam, R., Thakre, G. D., Gupta, P., Singh, Y., & Kumar, P. (2017, December). Effect of different drive modes on energy consumption of an electric auto rickshaw. In *2017 IEEE Transportation Electrification Conference (ITEC-India)* (pp. 1-5). IEEE.

Mandal, S. C., Boidya, P., Haque, M. I. M., Hossain, A., Shams, Z., & Mamun, A. A. (2021). The impact of the COVID-19 pandemic on fish consumption and household food security in Dhaka city, Bangladesh. *Global Food Security*, *29*, 100526.

Melwani, V., Priya, A., Toppo, M., Sethia, S., Khan, A., & Melwani, S. (2018). Study to assess the socio-demographic profile, health status and working conditions of auto-rickshaw drivers in Bhopal. *Int J Community Med Public Health*, *5*, 1323-6.

Mukherjee, S. (2018). Migration Adaptability Health and Vulnerability A study on the inter state migrant auto rickshaw drivers in Mumbai.

Mukherjee, S., & Das, K. C. (2022). Burden of occupational morbidities among migrant auto-rickshaw drivers. In *India Migration Report 2021* (pp. 103-116). Routledge India.

Mustafa, F., Khursheed, A., Fatima, M., & Rao, M. (2021). Exploring the impact of COVID-19 pandemic on women entrepreneurs in Pakistan. *International Journal of Gender and Entrepreneurship*.

Natarajan, S., & Abdullah, T. S. (2014). Social organizations: Decongesting the muddled economies of auto-rickshaw drivers in India. *World Applied Sciences Journal*, *30*(7), 831-837.

Natarajan, S., & Abdullah, T. S. (2014). Social organizations: Decongesting the muddled economies of auto-rickshaw drivers in India. *World Applied Sciences Journal*, *30*(7), 831-837.

Pucher, J., Korattyswaroopam, N., & Ittyerah, N. (2004). The crisis of public transport in India: overwhelming needs but limited resources. *Journal of public transportation*, *7*(4), 1.

Rai, A. (2019). Occupational Satisfaction of E-Rickshaw Drivers with Reference to Itahari-Nepal. *Dristikon: A Multidisciplinary Journal*, *9*(1), 20-38.

Ranjan, R. (2015). A Study on Work-Life Balance of Auto Rickshaw Drivers in Mumbai. *IOSR Journal Of Humanities And Social Science*, *20*(1), 106-111.

Ranjan, R., & Prasad, T. (2013). Literature Review Report on-"Work-Life Balance of Loco-Pilots (Railway Drivers) in India". *European Journal of business and management*, *5*(19), 17-27.

Reddy, P. S. (2020). A cross sectional study on assessment of stress among auto-rickshaw drivers in urban areas of Raichur. *Indian Journal of Public Health Research & Development*, *11*(9), 74-78.

Roy, A. (2016). E-Rickshaw Service in Barddhaman Town: Importance, Problems and Future Prospects. *International journal of Scientific and Research Publication*, *6*(9), 702-706.

Saxena, A., & Shrivastava, B. (2022). Examining Factors Affecting the Willingness of Rickshaw Operators to Adopt Battery Operated Rickshaws: The Case of Bhopal, India. *Transportation Research Record*, 03611981221130339.

Shahrukh, M., Pervaiz, M., & Khatoon, N. (1995). Stress-inducing factors among occupational drivers in Karachi, Pakistan. *Information for authors*, *1*.

Singaravelu, K. (2013). Socio-economic conditions of auto-rickshaw drivers-A study with special reference to Valparai region. *ZENITH International Journal of Business Economics & Management Research*, *3*(1), 90-96.

Sufian, A., & Hoque, M. J. (2022). Impact of COVID-19 pandemic on tourism geographies of Bangladesh: study on Sylhet region. *GeoJournal*, 1-13.

Tigari, H., & Santhosh, H. B. (2020). Socio-economic background of AutoRickshaw drivers. *Shanlax Int J Manag*, *8*(1), 48-53.

Walton, D. (1999). Examining the self-enhancement bias: professional truck drivers' perceptions of speed, safety, skill and consideration. *Transportation research part F: traffic psychology and behaviour*, *2*(2), 91-113.